

# Locomotive Certified Emission Standards

## Texas Commission on Environmental Quality (TCEQ) Texas Emissions Reduction Plan (TERP)

### Baseline NO<sub>x</sub> Emission Standard

Criteria have been established to determine the eligibility of an activity, based on the NO<sub>x</sub> federal certified emission standard for locomotive engines in the tables below. In situations where the model year of the locomotive and the model year of the existing engine are different, the model year of the engine must be used to determine the baseline emission standard for emission reduction calculations.

### Diesel Line Haul Locomotive NO<sub>x</sub> Emission Standard by Model Year

| Tier         | Model Year | Emissions (NO <sub>x</sub> ) g/bhp-hr |
|--------------|------------|---------------------------------------|
| Uncontrolled | N/A        | 13                                    |
| Tier 0       | 1973-2001  | 7.4 (8.0 if no SLAC)                  |
| Tier 1       | 2002-2004  | 7.4                                   |
| Tier 2       | 2005-2011  | 5.5                                   |
| Tier 3       | 2012-2014  | 5.5                                   |
| Tier 4       | 2015+      | 1.3                                   |

SLAC = Separate Loop Air Cooling

### Diesel Switcher Locomotive NO<sub>x</sub> Emission Standard by Model Year

| Tier         | Model Year | Emissions (NO <sub>x</sub> ) g/bhp-hr |
|--------------|------------|---------------------------------------|
| Uncontrolled | N/A        | 17.4                                  |
| Tier 0       | 1973-2001  | 11.8                                  |
| Tier 1       | 2002-2004  | 11.0                                  |
| Tier 2       | 2005-2010  | 8.1                                   |
| Tier 3       | 2011-2014  | 5.0                                   |
| Tier 4       | 2015+      | 1.3                                   |